

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-4. (Canceled)

5. (Currently Amended) A method of using an erythropoietin (EPO) peptide for the preparation of epitope-specific anti-EPO antibodies, wherein said antibodies neutralize the biological activity of EPO, an epitope being defined as being composed of one or more peptides, or one or more sections of peptide sequences, wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide selected from the group consisting of amino-acid positions 1 to 35 (P4), 84 to 95 (P1/1), 93 to 103 (P5), 110 to 123 (P5/1), 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO, comprising:

- (a) immunizing an animal with said peptide; and
- (b) isolating said epitope-specific EPO antibodies.

6. (Previously Presented) An antibody directed against an erythropoietin (EPO) peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

7. (Previously Presented) The antibody of claim 6 in which the antibody is a monoclonal antibody.

8. (Canceled)

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9. (Previously Presented) An anti-idiotypic antibody against the binding region of an antibody directed against an erythropoietin (EPO) peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

10. (Previously Presented) A method of using the antibody as claimed in claim 6 for purifying EPO, an EPO derivative, or an EPO peptide comprising:

- (a) contacting a biological sample with said antibody, wherein said antibody is bound to a carrier material suitable for chromatography; and
- (b) isolating said EPO, EPO derivative, or EPO peptide.

11. (Previously Presented) A diagnostic aid for the detection of erythropoietin (EPO) containing an antibody directed against an EPO peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

12. (Previously Presented) A diagnostic aid containing an EPO peptide as defined in claim 5 for the detection of anti-EPO antibodies.

13. (Canceled)

14. (Previously Presented) A pharmaceutical composition containing an antibody directed against an erythropoietin (EPO) peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO and a pharmaceutically acceptable excipient.

15. (Previously Presented) A pharmaceutical composition containing an anti-idiotypic antibody as claimed in claim 9 and a pharmaceutically acceptable excipient.

16. (Previously Presented) A diagnostic aid for the detection of neutralizing antibodies or erythropoietin (EPO) receptors, wherein said diagnostic aid contains an anti-idiotypic antibody against the binding region of an antibody directed against an EPO peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

17. (Previously Presented) An anti-erythropoietin (EPO) antibody directed against epitopes that bind to the EPO receptor.

18. (Previously Presented) An anti-EPO antibody as claimed in claim 17, which neutralizes the biological activity of EPO.

19. (Previously Presented) An anti-EPO antibody as claimed in claim 17, which is a monoclonal antibody.

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20. (Previously Presented) A diagnostic aid for the detection of erythropoietin (EPO), wherein said diagnostic aid contains one or more anti-EPO antibodies directed against epitopes that bind to the EPO receptor.

21. (Previously Presented) A pharmaceutical composition containing one or more anti-EPO antibodies as claimed in claim 17 and a pharmaceutically acceptable excipient.

22. (Previously Presented) A method for purifying EPO, EPO derivatives, or EPO peptides comprising:

(a) contacting a sample with one or more anti-EPO antibodies as claimed in claim 17, wherein said antibody or antibodies are bound to a carrier material suitable for chromatography; and

(b) isolating said EPO, EPO derivatives, or EPO peptides.

23. (Previously Presented) An anti-EPO antibody as claimed in claim 6, which is directed against epitopes which bind to the EPO receptor.